

In the claims

The following list of claims replaces all previous lists of claims for the present application.

1. (Canceled)

2. (Currently Amended) An apparatus for maintaining and supplying stable power to a skin care device, comprising:

a DC-DC converting unit (~~20, 120~~) for escalating the voltages from a charged battery power source (~~1, 101~~);

a skin-stimulating unit (~~50, 150, 151~~), including a supersonic element or an ion-inducting element;

a switch unit (~~30, 130~~) having a main switch and various functional switches;

a[[n]] LCD displayer (~~40, 140~~) for indicating various operating modes;

a CPU (~~2, 102~~) for controlling each component;

a voltage-measuring unit (~~R2, R3~~) for measuring the voltage of said DC-DC converting unit;
and

a switching element (~~D3~~) for controlling the pulse width (PWM) according to the duty ratio signal from the CPU.

3. (Original) An apparatus for maintaining and supplying stable power to a skin care device as claimed in claim 2, further comprises a PWM control signal function, which prolongs a switching-on stage by gradually increasing the voltage up to the operating voltage during the step-up stage, and inversely shortens the switching-off stage by gradually decreasing the operating voltage during the step-down stage.

4. (Currently Amended) An apparatus for maintaining and supplying stable power to a skin care device as claimed in claim [[3]] 2, further comprises a skin contact sensing unit for detecting contact of a vibrating part with the user's skin and a function of automatic step-up to the operating voltage when said skin detecting unit senses contact with the user's skin.

5. (Currently Amended) An apparatus for maintaining and supplying stable power to a skin care device as claimed in claim [[4]] 2, further comprises a safety control signal function, which rapidly shuts off power when it detects an unusual operation, overheating or an electric hazard.

6. (Currently Amended) A portable skin care device comprising an ~~An~~ apparatus for maintaining and supplying stable power to a skin care device as claimed in claim 2 ~~5~~, ~~further comprises a portable skin care device.~~

7-22 (Canceled)

23. (New) A portable skin care device as claimed in claim 6 further comprises
a main switch initiating unit having a function that, when said main switch is turned on, said CPU is activated by a switching signal inputted to an analogue input port from said CPU, first switch unit is activated by said CPU through an analogue output port, and FET is switched to supply battery power to said DC-DC converting unit.

24. (New) A portable skin care device as claimed in claim 23, wherein said main switch has a function that a switch-in signal is inputted to said analogue input port for activating said CPU through a second switch unit.

25. (New) A portable skin care device as claimed in claim 23, further comprises a photo-coupler and a phototransistor with a function that an output to the first switch unit from the CPU is carried out by switching of the FET by activating the photo-coupler of the phototransistor.

26. (New) A portable skin care device as claimed in claim 6, further comprises
a strength-adjusting switch for controlling the strength of the output voltage of the DC-DC converting unit, and
a mode switch for operating various modes of supersonic vibrations controlled by each vibrating frequency.

27. (New) A portable skin care device as claimed in claim 26, further comprises a heat-detecting unit and a safety control function for rapidly shutting off power when an unusual operation is detected due to overheating or an electric hazard.

28. (New) A portable skin care device as claimed in claim 27, wherein said heat-detecting unit further comprises a first heat sensor for sensing the surface temperature of the vibrating plate and a second heat sensor for sensing the temperature of a vibrating element and a switching element.

29. (New) A portable skin care device as claimed in claim 6, further comprises

a LED displayer equipped with a minimum number of connecting pins for indicating various operating modes in said portable skin care device comprising;

a first and a second LED connected in opposite directions, but disposed between a first input-output terminal and a second input-output terminal in parallel,

a third and a fourth LED connected in opposite directions, but disposed between the second input-output terminal and a third input-output terminal in parallel,

a fifth and a sixth LED connected in opposite directions, but disposed between the third input-output terminal and a fourth input-output terminal in parallel,

a seventh LED connected between the first input-output terminal and the fourth input-output terminal,

wherein each LED is independently activated to turn on and off according to each signal of input-output terminal from a controlling unit of CPU.

30 (New) A portable skin care device as claimed in claim 29, wherein said first to sixth LEDs are used for adjusting the strength of modes, said seventh LED is for displaying the status of the skin care device operation.